Consideration of the virtual team work and disabled citizens, as promising opportunity providers for the e government infrastructure's formation

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2009

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Abstract

The Information area has revolutionized the workplace. Douglas Kruse, a professor of human resources and the director of the program for disability research at Rutgers University, states that 7% of employed persons with disabilities work 20 hours or more a week from home. While some modern countries have established “virtual teams”, which are said to be comprised of people who are geographically scattered and who work across boundaries of space and time using computer driven communication technologies, it is also true that many developing countries remain structured around conventional face-to-face teams. A motive toward virtual team working may be cost effectiveness. Increasing transport and human resource costs makes face to face contact less attractive unless they are essential. In an environment of urging to move into the direction of governing the activities via electronic moves, consideration of the individuals who deliver their services to the society in the form of virtual teams are of the primary value which should accelerate the E culture while E government is aimed at.

By reviewing literature and theories, this paper present the definition and characteristics of virtual teams. A comparison of different types of virtual teams along with the application, strengths and limitations of them regarding as the promising elements of e activities are elaborated. Persons with disabilities are entitled to and capable of the same career options as their non-disabled counterparts and increasing numbers of them are taking advantage of virtual workplaces therefore creating a condition to facilitate the cultivation of e moves in the society.

Keywords

Virtual team, Virtual Workplaces, Disabled Citizen, Workplace, E Government

1- INTRODUCTION

Information technology is providing the required infrastructure for supporting the development of new organizational forms. Virtual teams represent one such organizational form, one that could revolutionize the workplace and provide organizations with unprecedented levels of flexibility and responsiveness [1]. When a society considers the heading to the alteration to an electronic based one, those activities which are more promising the preparation of the infrastructures, can be considered as the prime accelerators of the move. Virtual teams afford many advantages to organizations, including increased knowledge sharing [2] and employee job satisfaction and commitment, as well as improved organizational performance [3]. Virtual workplaces offer persons with disabilities new opportunities in the workplace that may simultaneously accommodate their disabilities while posing challenges in terms of access to the information that they need to perform their jobs [4]. This condition creates an opportunity for utilizing a double sided value creation opportunity of virtual and disability towards the materialization of a faster electronic move consideration.

Over 650 million people worldwide are living with a disability most of them in developing countries [5]. A survey conducted by the International Labor Organization (2004-2005) showed that 80% of disabled individuals in developing countries are unemployed and 65% are unemployed in industrialized countries [4]. In spite of the great impact which might be provided by virtual teams, they are less introduced in developing countries rather than developed ones.

This paper with a comprehensive review of literature and related resources covering the topic presents type of virtual teams and their benefits, draw back and main features and explains how virtual team can play a prominent role to capable persons with disabilities do the same career options as their non-disabled counterparts. By doing that, the degree of human capital formation is raised and at the same time it can be utilized in line with the intention of the modern governing policies of the governing bodies.

2- Definition of Virtual Team

Gassmann and Von Zedtwitz [6] defined “virtual team as a group of people and sub-teams who interact through interdependent tasks guided by common purpose and work across links strengthened by information, communication, and transport technologies”. Another definition suggests that virtual teams, are distributed work teams whose members are geographically dispersed and coordinate their work predominantly with electronic information and communication technologies which are the prime requirements of an e society (e-mail, video-conferencing, telephone, etc.) [7].

Along with Bal and Teo [8] it could be concluded that a team will become virtual if it meets four main common criteria and other characteristics that are summarized in table1. Geographically dispersed teams allow organizations to hire and retain the best people regardless of location. The temporary aspect of the team appears less emphasized [9] although [8, 10, 11] included temporary in virtual team definition but some authors like Gassmann and Von Zedtwitz [6] use may be temporary for some team members [23]. Telework provides cost savings to employees by eliminating time-consuming commutes to central offices and offers employees more flexibility to co-ordinate their work and family responsibilities [24].It is obvious that when these type of activities gets the required importance and priority in the society, their required services would open up direct program of the governing bodies at the society to invest more on the infrastructures require by e affairs.

Table 1 Common criteria of virtual team

Characteristics of virtual team	Descriptions	References
Common criteria	Geographically dispersed (over different time zones)	[9, 11-15]
	Driven by common purpose(guided by a common purpose)	[6-8, 13, 16]
	Enabled by communication technologies	[8, 9, 14, 15]
	Involved in cross-boundary collaboration	[6, 8, 16, 17]
Other characteristics	It is not a permanent team	[8, 10, 11, 18, 19]
	Small team size	[8]
	Team member are knowledge workers	[8, 20]
	Team members may belong to different companies	[12, 19]

A summary of definition of virtual team may be taken as: small temporary groups of geographically, organizationally and/or time dispersed knowledge workers who coordinate their work predominantly with electronic information and communication technologies in order to accomplish one or more organization tasks.

3- Types of Virtual Team

Generally, one can differentiates various forms of "virtual" work depending on the number of persons involved and the degree of interaction between them. The first is "tele work" (telecommuting) which is done partially or completely outside of the main company workplace with the aid of information and telecommunication services."Virtual groups " are composed of two or more teleworkers engaged in a lasting relationship, pursuing a common interest and each member reports to the same manager [21]. In contrast, a "virtual team" exists when the members of a virtual group interact with each other in order to accomplish common goals.

Finally, "virtual communities" are larger entities of distributed work in which members participate via the Internet, guided by common purposes, roles and norms. In contrast to virtual teams, virtual communities are not implemented within an organizational structure but are usually initiated by some of their members [22]. Examples of virtual communities are open source software projects [7]. Teleworking is viewed as an alternative way to organize work that involves the complete or partial use of ICT to enable workers to get access to their labor activities from different and remote locations

4- Benefits and Draw Back of Virtual Team

As it is hinted to in previous paragraph, the availability of a flexible and configurable base infrastructure is one of the main advantages of agile virtual teams. Virtual R&D teams which members do not work at the same time or place [25] often face tight schedules and a need to start quickly and perform instantly [26]. As a drawback, virtual teams are particularly vulnerable to mistrust, communication break downs, conflicts, and power struggles [27]. On the other hand, virtual teams reduce time-to-market [28]. Lead time or time to market has been generally admitted to be one of the most important keys for success in manufacturing companies [29].

Table 2 summarizes some of the main advantages and Table 3 some of the main disadvantages associated with virtual team. Today's human being is in a transient phase that is pushing out beyond the envelope of team fundamentals into a space where they begin to lose track of reality [30]. Clearly the rise of network technologies has made the use of virtual teams feasible [31].As this happen, the possibility of the materialization of the other e affairs may also be more feasible. Finally organizational and cultural barriers are another serious impediment to the effectiveness of virtual teams. As the infrastructures are forming and raising their quality levels, the trust levels are also might increase and the society can be developed more pronounced and the effectiveness level may also rise proportionally. Many managers are uncomfortable with the concept of a virtual team because successful management of virtual teams may require new methods of supervision [32].When the affairs in the society speeds up,

the experience of dealing with the managerial capabilities required also may be affected.

Table 2: some of the main advantages associated with virtual team

Advantages	Reference
Reducing relocation time and costs, reduced travel costs (Virtual teams overcome the limitations of time, space, and organizational affiliation that traditional teams face [33])	[34-45]
Reducing time-to-market [Time also has an almost 1:1 correlation with cost, so cost will likewise be reduced if the time-to market is quicker [46]]	[28, 29, 39, 40, 45, 47-54]
Able to tap selectively into center of excellence, using the best talent regardless of location	[3, 37, 38, 40, 42, 55-58]
Greater degree of freedom to individuals involved with the development project	[40, 57, 59]
Greater productivity, shorter development times	[34, 51]
Producing better outcomes and attract better employees, Generate the greatest competitive advantage from limited resources.	[35, 60, 61]
Optimize the contributions of individual members toward the completion of business tasks and organizational goal	[56]
Better team outcomes (quality, productivity, and satisfaction)	[33, 62, 63]
Higher team effectiveness and efficiency	[28, 64]

Table 3: some of the main disadvantages associated with virtual team

Disadvantages	References
Decrease monitoring and control of activities	[65]
Vulnerable to mistrust, communication break downs, conflicts, and power struggles	[27, 37, 66-68]
Challenges of determining the appropriate task technology fit	[30, 57, 69-72]
Cultural and functional diversity in virtual teams lead to differences in the members' thought processes. Develop trust among the members are challenging	[26, 39, 57, 58, 70, 71, 73-76]
Sometimes requires complex technological applications	[36, 57]

5- Virtual Workplaces for Persons with Disabilities

Besides the virtual team consideration that promises the possibility of e affairs infrastructure formation, virtual workplaces also can offer greater advantages to persons with physical and sensory disabilities and bring them in the picture and add up the possibility of self employed individuals in the society to a greater extent as the conventional condition.

Through telecommuting, persons in these populations may have transportation issues related to poor mobility, communication problems related to poor receptive and/or expressive language and fatigue and self-care that may be related to their conditions. For example, persons with orthopedic disabilities usually need special transportation that is expensive and time-consuming; often taking triple the amount of time to travel from one place to another [4].Virtual team reduces travel time and cost [36, 38] which are the most valuable components of the new technologies. The time saved in travel alone that may be devoted to the job at home represents a significant saving for both the employer and employee.

Persons who are unable to hear or speak clearly, may use e-mail or instant message systems to communicate with co-workers and complete tasks, and, persons with chronic health conditions or limited mobility may be more comfortable taking rest breaks and handling personal care at home. In their home environments, persons with physical and sensory disabilities often have special equipment, a specially designed environment, and, in some cases, caregivers that facilitate their independence and ability to complete tasks in a more efficient and cost effective manner. In spite of the advantages that virtual workplaces offer persons with disabilities, social isolation may pose special problems for them. Persons with disabilities already have problems fitting into mainstream society and need opportunities to observe appropriate role models and practice social skills [4].

6- Conclusion

Persons with disabilities are entitled to and capable of the same career options as their non-disabled counterparts and increasing numbers of them are taking advantage of virtual workplaces. Though the provision of such opportunities for this portion of the society, parallel to the effective employment raise, the condition for the creation of infrastructure of the e government and related affairs are speeded up and the required investments are justified. Despite the various constraints to this study, the results have been encouraging as it has introduced to shed some light for managers and organizations so as to a better understanding the effect of virtual teams in order to decreases disable unemployment and provide an opportunity to satisfy existing disable employee.

Developing countries are far behind of developed countries in order to implement virtual team work in the field of disable persons, so dealing with virtual team should be taken into consideration for those under developed countries which are pursuing the electronic affairs as their headways for their development's criteria. Of course virtual team efficient collaboration requires proper technological support. Modern technology facilitates virtual team cooperation and often it is enough for employee to have PC and Internet connection to join the virtual team. Virtual team is available to managers as they strive to help persons with disabilities succeed in the workplace.

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